STATE OF MARYLAND • DEPARTMENT OF HEALTH AND MENTAL HYGIENE

MEMORANDUM

Thru: Mr. Louis Martino

Copies: Mr. Ronald Nelson
Mr. William Chicca
File

TO Mr. Alvin Bowles From Mr. Yousif Matouk Date 9/17/84

Subject Amoco

1. The Waste Management Administration has received Amoco application for a facility permit on November 2, 1981.

2. On May 14, 1982, the Amoco was observed by me, It was the first time after I became the project manager for the facility and found that:

   a. No facility permit issued yet.

   b. There was a full lagoon with oil and grease.

   c. There was a ground water contamination with oil and grease.

   d. The company already put 13 wells in their facility without upgradient wells.

   Result of my inspection ended by requesting the following:

   a. Ground water remedial plan submitted.

   b. Action being taken at well #13.

   c. Action to be taken to remove backwash lagoon sludge and contaminated soils.

   d. Action to be taken to determine extent of leakage from asphalt recovery boxes (wooden tanks).

   e. Action to be taken at well #7 to correct ther low pH.

   f. Comply with COMAR 10.51.05.06.

   Ground water monitoring and all outstanding ground water analysis must be completed immediately (Attachment 1).

3. On May 26, 1982, the company sampled eight wells and filter sludge by Martel Laboratory. The result is included (Attachment 2).

4. On June 7, 1982, the company sent a letter to our office detailing their remedial plan as required by the May 14th observation after I proved it by telephone conversation.

5. On June 6, 1982, I made inspection and requested some clean-up and following the previous committment (Attachment 3).

6. On June 30, 1982, a letter was received from Amoco Oil Company by this office. The implementation to a program to define the extent of contamination and correct the problem (Attachment 4).

7. On June 30, 1982, the Office received Martel Laboratory's ground water analysis report for all wells except well #3 was not recorded at this time due to the contractor's inability to pump the well. Also, they submitted some of this information requested on June 16, 1982 (Attachment 4 A & B).

8. In the meantime, I was trying to issue their permit. On July 19, 1982, the permit was issued with a special condition (schedule of compliance). They had to meet five conditions within six months of the effective date.

9. A meetining was held on August 4, 1982 at the O'Conor Building. Attended by Chuck and I for Hazardous Waste Division and Messrs. Edward Sullivan, Michael, Chuck, and Delbert Parks for Amoco (Attachment 5).

   In this meeting we covered the following subject:

   a. Discussed the clean-up/improvement program underway at their terminal.

   b. Discussed test results of Martel Laboratory's ground water samples taken May 26. While the results were not satisfactory for me, I requested another series of samples and tests. They agreed to do so.

   c. Discussed the de-listing and possible withdrawal of their permit (Attachment 5 A).

10. On August 23, 1982, this office received a letter requesting withdrawal of Permit A-248 and elimination of their permit fee $1,300.00 (Attachment 6).

    On September 8, 1982, I answered their letter and requested that the five conditions including the clean-up in their permit must be complied before we consider their permit withdrawal (Attachment 7).

11. On August 23, 1982, this office received a letter outlining the clean-up improvement program. It was underway at the Amoco Oil facility. Also outlined the sampling and analyzing of wells to be done in September as I requested at the August 4th meeting (Attachment 8).

12. On August 24, 1982, Mr. Parks and I had a telephone conversation about the existing facility permit and this office cannot issue a letter of withdrawal until the cleaning program is final stage.

13. On September 17, 1982, an observation of Amoco was taken by me to their cleaning schedule (Attachment 9).

14. On October 13, 1982, this office received the analysis on the wells sampled by Law Engineering Testing on September 16 and 28.

    This analysi shows the well #3 has oil and grease 40,000 mg/l. and it was including the analysis for the new upgradient well #16 which I requested in our meeting of August 4, 1982 (Attachment 10).

15. On October 14, 1982, I had a telephone conversation with Mr. Parks and agreed to:

    a. Pump wells #3 and #7 at least twice a day until October 18, 1982. Then observed the wells on October 18, 1982, because well #3 has very high grease and oil, and well #7 with low pH without explanation.

16. On October 21, 1982, another sampling was tanken for wells #3 and #7 by Law Engineering. The result was submitted by Amoco on November 24, 1982. Shows that the oil and grease reduced to 2,100 ppm in well #3 (Attachment 11).

17. On December 21, 1982, an inspection was taken by Mr. Chuck Lewis indicating that all actions have been completed related to the five special conditions in their permit, and given 60 days to correct the ground water from grease and oil in one area only closed to the old lagoon (Attachment 12).

18. On March 11, 1983, I met with Mr. Parks, Manager, Distribution Operations and we discussed well #3 ground water contamination with grease and oil because the only one shows high contamination. Result of the meeting we agreed to:

    a. Amoco will sample well #3 three times a week and retain the samples.

    b. Amoco will send samples of well #3 to Law Engineering for testing of grease and oil. In the meantime, I look ten/twelve samples of well #3 for grease and oil. Some of the samples had very little contamination, other higher, but I was no happy about some of the samples.

19. On March 23, 1983, the Law Engineering Testing Co. visited the site and obtained ground water samples from well #3 and the result was submitted on April 7, 1983, with oil and grease 1,209 mg/l and the flash point greater than 140°F (220° F) (Attachment 13).

20. On May 2, 1983, the Amoco sent a letter to our office and requested that they feel the problem of ground water contamination has been corrected. Therefore, they requested the withdrawal of their permit and a change in their status to a generator only.

21. On May 2-12, 1983, samples were taken from well #3 and the result was received on May 16, 1983 shows that oil and grease averaged 57 ppm (Attachment 14).

22. I answered their letter on June 30, 1983, by saying that: Acknowledge to results of their efforts to remedy the ground water contamination at their site and reported that they will be digging test pits in the near furture to make additional observations on ground quality. Also, the agency postponed a decision concerning their request. In the meantime, the Amoco digged two testing wells around #3 existing well each 12 feet deep and 22 inches wide (Attachment 15).

23. An observation of the two wells was taken by me and found that after 2-3days of the wells digging:

    1. The North well has 4-4 1/2 inch high of oil and grease.

    2. The South well has 3 1/4 inch high of oil and grease. The amount was 0.777 gal for 3 days (7/15-18/1983).

24. Samples were taken on July 25, 1983 and the result for out lab were;

well #3A	13.3 ppm
well #3B	18.4 ppm

(Attachment 16)

25. Split samples were taken on August 25, 1983, and our lab results were:

well #3A	209.0 ppm
well #3B	19.9 ppm

The Law Engineering Testing Lab results were:

well #3A	203 ppm
well #3B	37 ppm

(Attachment 17)

26. Another split samples were taken on September 7, 1983 and the results are:

Our Lab	Law Engineering Lab
well #3A - 610.4 ppm	127 ppm
well #3B - 7.9 ppm	23 ppm

(Attachment 18)

27. The samples were taken on September 26, 1983, and the results are:

Our Lab	Law Engineering Lab
well #3A - 976.9 ppm	
well #3B - 16.1 ppm	

28. Samples were taken on February 9, 1984 after we stop the continuous pumping the wells 24 hours, and the result are:

well #3A - 7.2 & 13.00 ppm oil and grease
well #3B - 8.6 & 13.00 ppm oil and grease

29. Samples were tanken on March 9, 1984 the same procedures as before, and the result are:

well #3A - 8.5
well #3B - 16.1

30. Samples were taken on May 17, 1984 the same procedures as before, and the result are:

well #3A - 1.83
well #3B - 4.97

31. Samples were taken on June 15, 1984 after we left the well one monthwithout pumping out water and the results are:

well #3A - 1.9
well #3B - 1.9

The EP Toxicity are:

Arsenic	0.001 ppm
Cadmium	0.005 ppm
Lead	0.5 ppm
Mercium	0.001 ppm

Fact and Conclusion:

From the middle of Octoberl982 to June 1984, the company has pumped all the wells two to three times per week and well #3 daily. They have retained samples and visually recorded color, amount of water to empty well, pH, and oils and grease (if any), particularly well #3; they have done this under the auspices of me. The Amoco Company and I have had numerous conversations during this period to see have Amoco was progressing.

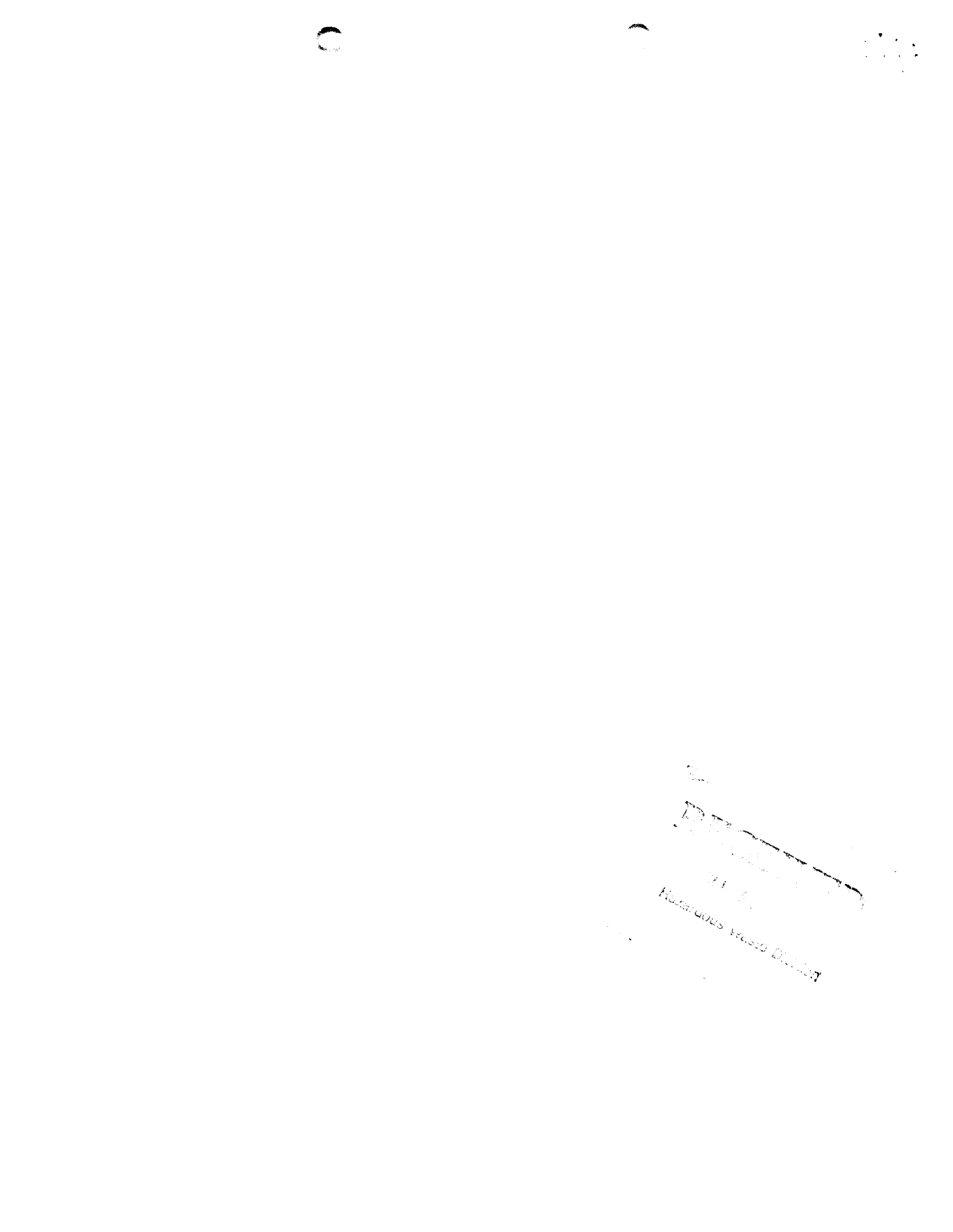
Well #3 has shown steady improvement. But the May samples were a little high, therefore, we decided in July to dig two wells around well #3 to point the source of oil and grease. Finally we found the source of the oil and grease coming from the area which the lagoon was located, also results of testing show

there is a flucuation in the result of the oil and grease amount even we used Bailor for sampling on September 26, 1983. I had a meeting with Amoco on September 26, 1983, and we agreed to continue pumping well #3 A & B for two months and have a samples take every thirty days. If it does not clear up then we have to go to extensive methods to correct the problem in a very small area (maybe 4' X 4').

In the meantime, the filter sludge has been analyzed and is not hazardous, the flash point exceeds 220°F. The filter sludge is changed annually. Their water outfall is analyzed monthly and reported in accordance with the requirements of the States NPDES permit. Finally, the last two samples indicated that the source drained out and the reading was very low, even below the NPDES requirement. Then we changed the method of sampling by taking a sample of contaminated water after one month without pumping and the result was 1.9 ppm.

In conclusion, I feel that the problem of ground water contamination has been corrected from all the areas even the spot under the old lagoon. There was a packet. I hope this will be the final stage and I am taken a sample once a month for three months to approve the ground water is clean.

gmk



WMA

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Laboratories Administration
Howard and Biddle Streets
P.O. Box 2355, Baltimore, Maryland 21203

850816

Lab. No. [redacted]

Program:

RCRA X

NPDES ______

SPECIFY ______

Hazardous Waste Laboratory
Organic Analysis Report Form

5707 Yours! Material WMA

Priority ______

Collector Amoco
Name/time/date

Sample Source Amoco well

Sample ID No. 3B South

Preservative Used —

Sample Alert ______

Chain of Custody sample possession

From ______ to ______
Name/time/date Name/time/date

From ______ to ______
Name/time/date Name/time/date

From ______ to ______
Name/time/date Name/time/date

EP Toxicity Organics

	PPb
endrin	
lindane	
methoxychlor	
toxaphene	
2, 4-D	
2, 4, 5-TP(silvex)	

RECEIVED
SEP 16 1985
ENFORCEMENT FILE
FILE COPY ONLY

Organics Analysis

- [ ] *Purgeable halocarbons ______
- [ ] *Purgeable aromatics ______
- [ ] *Acrolein & Acrylonitrile ______
- [ ] *Phenols ______
- [ ] *Phthalate esters ______
- [ ] *Organochlorine Pesticides & PCB ______
- [ ] *Nitroaromatics & Isophorone ______
- [ ] *Polynuclear aromatic hydrocarbons ______
- [ ] *Haloethers ______
- [ ] *Chlorinated hydrocarbons ______

*see other side for specific compounds

7 Organic identification and comparison ______

X oil and grease 1.6 PPM

Authorized By: ______

Section Chief: ______ Date: 9-13-85 Verified By: [signature]

MARYLAND STATE DEPARTMENT OF HEALTH AND MENTAL HYGIENE
Laboratories Administration
Howard and Biddle Streets
P.O. Box 2355, Baltimore, Maryland 21203

850816

Program:
RCRA X
NPDES ______
SPECIFY ______

Lab. No. [redacted]

Hazardous Waste Laboratory
Organic Analysis Report Form

5707 WMA

Priority ______

Collector Amoco - Yous/Mahood
Name/time/date

Sample Source Amoco-well

Sample ID No. 3B North

Preservative Used ——

Sample Alert ______

Chain of Custody sample possession

From ______ to ______
Name/time/date Name/time/date

From ______ to ______
Name/time/date Name/time/date

From ______ to ______
Name/time/date Name/time/date

RECEIVED

EP Toxicity Organics

	PPb
endrin	
lindane	
methoxychlor	
toxaphene	
2, 4-D	
2, 4, 5-TP(silvex)	

Organics Analysis

- [ ] *Purgeable halocarbons
- [ ] *Purgeable aromatics
- [ ] *Acrolein & Acrylonitrile
- [ ] *Phenols
- [ ] *Phthalate esters
- [ ] *Organochlorine Pesticides & PCB
- [ ] *Nitroaromatics & Isophorone
- [ ] *Polynuclear aromatic hydrocarbons
- [ ] *Haloethers
- [ ] *Chlorinated hydrocarbons

*see other side for specific compounds

7 Organic identification and comparison ______

X oil and grease 17 PPM

Authorized By: ______

Section Chief: DS Date: 9-13-85 Verified By: [illegible]

In addition to written notification, the WMA must have visual proof by site inspection that the facility has generator status or that none of the previously described hazardous waste handling activities are being performed. A staff member of the WMA will contact you in the near future to arrange a site inspection. The insepection must be made whether or not hazardous waste handling activities are being performed.

If the WMA is not notified in writing within thirty days that these hazardous waste handling activities are not part of the current activities performed at the facility, I will assume that they are and pursue enforcement action. If you have any questions, contact Mr. Louis Martino at the above number.

Sincerely,

Alvin Bowles, Chief
Hazardous Waste Division

AB/lam

cc: Mr. Ronald Nelson
Mr. William E. Chicca
Mr. Louis Martino
Mr. John Koontz

State of Maryland

OFFICE OF ENVIRONMENTAL PROGRAMS
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • AREA CODE 301 • 383-

TTY FOR DEAF: Balto. Area 383-7555
D.C. Metro 565-0451

Adele Wilzack, R.N., M.S., Secretary

William M. Eichbaum, Assistant Secretary

file
Status sheet
put in your
code
[illegible]
3-5-85

December 14, 1984

CERTIFIED MAIL
Return Receipt Requested

Mr. Debrous Parks
Amoco Oil Company
MDD003093598
3901 Asiatic Avenue
Baltimore, Maryland 21226

Dear Mr. Parks:

The Waste Management Administration (WMA) is in the process of updating the status of facilities that filed Part A applications pursuant to the requirements of the Resource Conservation and Recovery Act (RCRA). Members of my staff have recently completed a file review of hazardous waste handling activities at your facility. Their information indicates that in 1980 you notified the Environmental Protection Agency (EPA) of hazardous waste activities in a Part A application. However, there is no indication that you completed action to obtain a Controlled Hazardous Substance (CHS) permit. As you are aware, Maryland law requires any owner/operator of a facility that treats, stores, or disposes of hazardous waste to obtain a CHS permit.

Since you have no permit for this facility, you must establish that one is not necessary. To do this you must notify me in writing within thirty days of receipt of this letter of the status of hazardous waste handling activities at your facility. Your notification will address whether or not the activities indicated by various process codes in the Part A application are being performed. In essence you will be either confirming generator status or verifying that you no longer generate, treat, store or dispose hazardous waste. Be complete in your response since it will be used to determine if the facility can be removed from the list of facilities that need to submit a Part B application.

In addition to written notification, the WMA must have visual proof by site inspection that the facility has generator status or that none of the previously described hazardous waste handling activities are being performed. A staff member of the WMA will contact you in the near future to arrange a site inspection. The insepection must be made whether or not hazardous waste handling activities are being performed.

If the WMA is not notified in writing within thirty days that these hazardous waste handling activities are not part of the current activities performed at the facility, I will assume that they are and pursue enforcement action. If you have any questions, contact Mr. Louis Martino at the above number.

Sincerely,

Alvin Bowles, Chief
Hazardous Waste Division

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State of Maryland

OFFICE OF ENVIRONMENTAL PROGRAMS

DEPARTMENT OF HEALTH AND MENTAL HYGIENE

201 WEST PRESTON STREET • BALTIMORE, MARYLAND 21201 • Area Code 301 • 383-5736

Harry Hughes, Governor

Charles R. Buck, Jr., Sc.D. Secretary

CONTROLLED HAZARDOUS SUBSTANCES FACILITY PERMIT

Permit Number	A248
Effective Date	July 19, 1982
Expiration Date	July 18, 1985

Pursuant to the provisions of Health - Environmental Article, Section 7-232, Annotated Code of Maryland and Regulations promulgated thereunder, the Office of Environmental Programs, Waste Management Administration, hereinafter referred to as "WMA" hereby authorizes

Amoco Oil Company

to operate or maintain a Hazardous Waste Treatment and Storage Facility

located at **3901 Asiatic Avenue**
Baltimore, Maryland 21226

in accordance with the following special and general conditions including the attached map made a part hereof, and the provisions of COMAR 10.51.

I. Special Conditions

A. Authorized CHS

1. Permittee is authorized to store the types and quantities of CHS specified below:

a. F001: spent halogenated solvents used in degreasing
Quantity: 2,000 lbs.

b. F002: spent halogenated solvents
Quantity: 200 lbs.

c. F003: non-halogenated solvents
Quantity: 100 lbs.

d. D001: ignitable waste crude asphalt generated as a result of spills
Quantity: 1,000 lbs.

Note: CHS F001, F002, F003, and D001, identified above, may be stored in the approved Drum Storage Garage. A minimum eight (8) foot buffer zone shall be maintained around ignitable waste. Hazardous waste shall be stored as to prevent any contact with facility process chemicals.

e. K049: slop oil emulsions
Quantity: 4,000 lbs.

f. K050: Heat exchanger bundle cleaning sludge
Quantity: 800 lbs.

g. K051: A P I separator sludge
Quantity: 12 tons

Note: CHS K049, K050, K051, which are discharged to the refinery waste water treatment system shall be stored as backwash sand filter sludge in the approved containment structure and waste pile area. Maximum total quantity of sludge-sand stored at one time shall be 15 tons, assuming 12 lbs/cu. ft.

2. Permittee is authorized to treat the types and quantities of CHS specified below:

a. D003: reactive waste, sour water, resulting from the refining of crude asphalt
Quantity: 20,000 tons/year

Note: Treatment process approved is a sour water stripper. Treatment process shall render sour water non-reactive as defined by COMAR 10.51.02.12, before discharge into refinery waste water sewer.

Other types and quantities of CHS may only be treated, stored, or disposed of upon receipt of written authorization from WMA.

I. Special Conditions (Cont'd.)

B. Schedule of Compliance

1. By the effective date of this permit submit for review plans and specifications to complete actions as follows:

a. Renovate existing backwash filter lagoon to comply with COMAR 10.51.05.11 Surface Impoundments and install an impervious liner; or construct a new structure to comply with COMAR 10.51.05.10 Tanks, to replace existing lagoon.

b. Provide in the backwash filter containment structure an overflow pipe to the facility waste water treatment system. Overflow pipe shall be of a capacity to maintain two (2) feet freeboard during maximum inflow conditions resulting from filter overflow or by-pass.

c. Renovate existing waste pile, located adjacent to cooling tower, to comply with COMAR 10.51.05.12. Existing concrete pad should have all joints and cracks sealed to make it impermeable.

c. Provide means to prevent all storage and treatment facilities from being inundated by 100 year flood levels of 8.71' City of Baltimore Datum.

e. Provide means to contain facilities runoff for treatment in facility waste water treatment system.

f. Complete the construction of all permit requirements within 6 months of the effective date of permit.

C. Monitoring

I. COMAR 10.51.05.06 Groundwater Monitoring

II. In addition to the parameters required above the following parameters shall be monitored in accordance with EPA Test Procedures and submitted to: Office of Environmental Programs, Waste Management Administration, Hazardous Waste Division, 201 W. Preston St., Baltimore, Maryland 21201.

PARAMETER	SAMPLE FREQUENCY	SAMPLE TYPE	MONITORING POINT
Oil	Quarterly for first year to establish background concentrations. Annually thereafter.	Grab	Each monitoring well.

The monitoring results obtained during the previous quarter shall be submitted to WMA, postmarked no later than the 28th day of the month following the end of the reporting period. Reporting periods shall end on the last day of the following months: March, June, September and December. The first reporting period ends September 1982.

II. General Conditions

A. Operations Manual

As of the effective date of the permit, the permittee shall operate the facility as explained in the approved Manual of Operations specifying day-to-day operational procedures for the facility, including a contingency plan for spill prevention and control, closure, post closure, if applicable, and financial requirements. The contents of this manual and compliance with its conditions shall be in accordance with Regulations 10.51.05.02 thru 10.51.05.08, in the order described in the guidelines provided by WMA.

B. Notification

If for any reason the permittee does not comply with or will be unable to comply with any provisions of the approved Operations Manual, or immediately upon becoming aware of a spill or loss of CHS, permittee shall immediately notify WMA by telephone at 301-383-6650 (or 243-8700 Nights/Weekends) and the local Health Department, within 1 hour of becoming aware of such an occurrence, and provide WMA with the following information within five days of such notification:

1. a description of the noncompliance; including the cause and the anticipated time the condition of noncompliance is expected to continue or if such condition has been corrected, the duration of the period of noncompliance;

2. steps taken or to be taken by the permittee to bring the facility into compliance;

3. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance;

4. a description of the accelerated or additional monitoring by the permittee to determine the impact of the noncompliance on the environment and public health.

C. CHS Transportation and Manifests

Any shipments of CHS received at the facility or transported off-site, shall be accompanied by a completed manifest and conducted in accordance with Regulations 10.51.03 thru 10.51.05. Manifest copies shall be submitted to WMA on a weekly basis.

D. Right of Entry

1. The permittee shall allow the Director of WMA or his authorized representatives upon the presentation of credentials:

   a. to enter upon the permittee's premises where a facility is located or in which any records are

II. General Conditions (Cont'd.)

D. Right of Entry (Cont'd.)

1. a. required to be kept under the terms and conditions of this permit;

b. to have access to and copy, any records required to be kept under the terms and conditions of this permit;

c. to inspect, the facility, monitoring equipment or monitoring method required in this permit;

d. to have access to the facility for the purpose of obtaining samples, drilling test wells, measuring volumes and kinds of substances received and discharged.

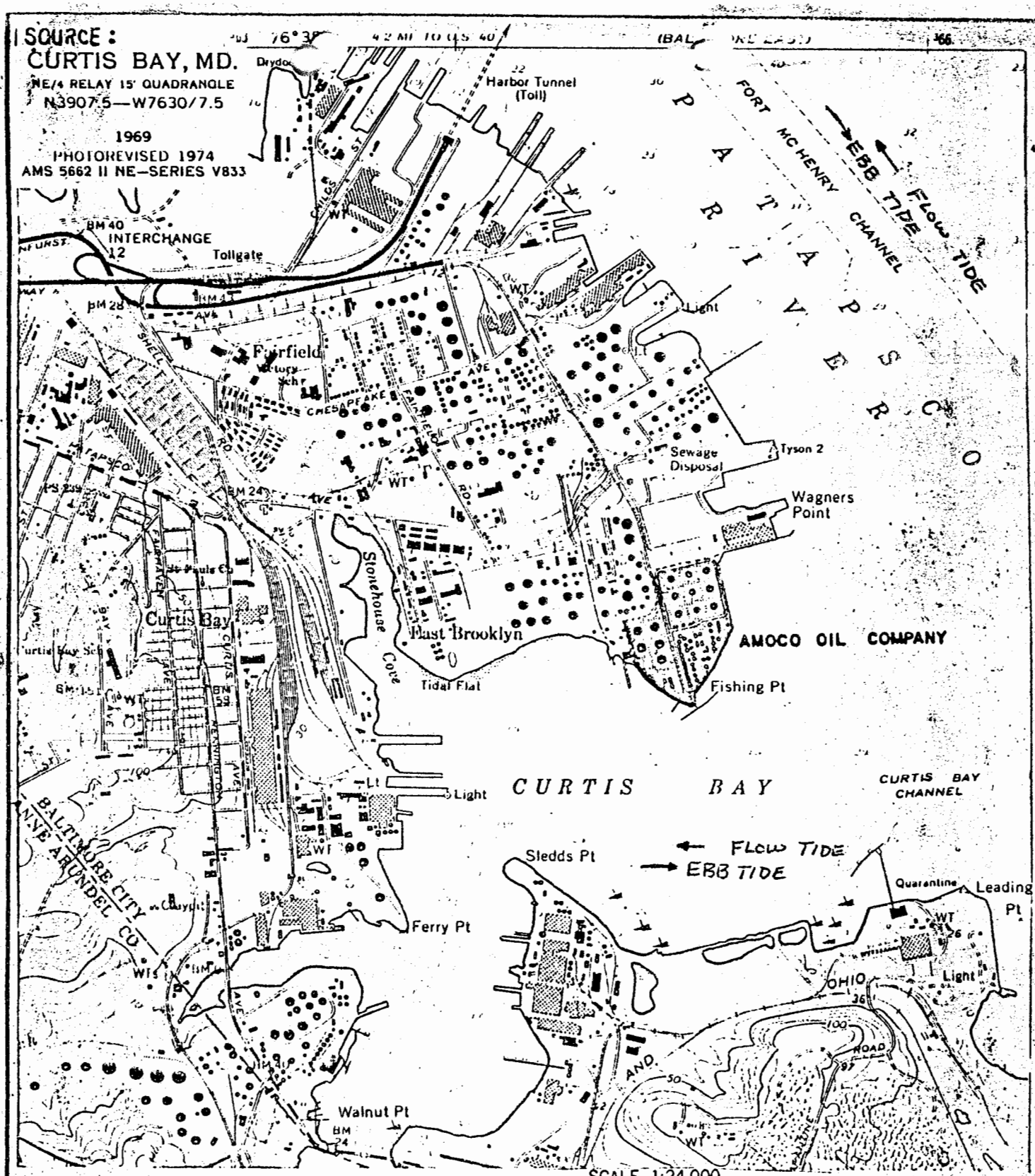
2. The permittee shall allow the local health officer or his authorized representatives at any reasonable time upon the presentation of credentials to enter upon the permittee's premises where a facility is located:

a. for the purpose of obtaining water samples, drilling test wells, measuring volumes and kinds of substances received and discharged, and inspecting the facility.

E. Terms

Unless WMA modifies, suspends, or revokes the permit (in accordance with COMAR 10.51.07.03) the conditions set forth herein shall be valid for a period of 3 years from the effective date of this permit. At least 120 days before the expiration date, permittee shall submit a new application for renewal or notify WMA of the intent to cease operation by the expiration date. If the applicant has made timely application, the terms and conditions of this permit are automatically continued and remain fully effective and enforceable until such time as WMA issues or denies the new permit.

Ronald Nelson, Director
Waste Management Administration



CENTER OF REFINERY
76° 33' 54" LAT.
39° 13' 43" LONG.

MN
GN
9½°
15¹ MILS
0°59'
17 MILS

AMOCO OIL COMPANY
R & T ENGINEERING
CHICAGO,

BALTIMORE REFINERY LOCATION MAP

UNIT ASPHALT REFINERY
DIV.
LOCATION BALTIMORE MD

DRAWN BY MTC
APPVD BY
DATE 4-14-80
SCALE:
A-1000-SK1

Approved OMB No. 158-S80004

X. FACILITY DRAWING (see page 4)